

REMARKS

This Response is in reply to the Office Action rejection mailed on March 14, 2007.

Claims 1 – 29 and 31 – 46 are pending in the application. Claims 1 – 29 and 31 are rejected, and claims 32 – 46 have been withdrawn.

Claims 1 – 29 and 31 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,442,356 (hereinafter Omata) in view of U.S. Patent 6,421,521 (hereinafter Tanaka). Omata discloses four separate power supplies, each separately and independently coupled to one of four corresponding transfer rollers. As the Office Action correctly noted, Omata fails to teach or suggest a first power supply coupled to at least two but less than all image transfer devices.

For that teaching, the Office Action cited Tanaka. One embodiment of Tanaka as illustrated in Figure 7 and cited in the Office Action includes a first power supply coupled to only the black transfer roller, and a second power supply coupled to only the yellow, magenta, and cyan transfer rollers. Another embodiment as illustrated in Figures 14 – 17 and cited in the Office Action includes a constant voltage power supply and a constant current power supply. Only one power supply may be utilized at any one time, and the selected power supply is coupled to a circuit that includes all four transfer rollers. The circuit allows the selected power supply to be coupled with only the black transfer roller or all four transfer rollers, but no other combinations.

Claim 1 has been amended to now include that the first power supply is coupled to the black image forming unit transfer device and at least one non-black image forming unit transfer device, but not to all of the image forming unit transfer devices. Neither Omata nor Tanaka teach or suggest this combination. Omata teaches a discrete power supply coupled individually to each image forming station. In the embodiment of Figure 7, Tanaka teaches the first power supply coupled to only the black transfer roller, and the second power supply coupled to the

yellow, magenta, and cyan transfer rollers. Tanaka does not teach coupling the first power supply of this embodiment to any of the other transfer rollers. In fact, Tanaka teaches against coupling the black transfer roller power supply to any of the other transfer rollers. Tanaka teaches that it is beneficial to dedicate the first power supply to the black transfer roller so that the black transfer roller can be used by itself when producing monochrome images. None of the other transfer rollers is charged when operated in this configuration. (Col. 6, lines 51 – 53). Tanaka also fails to teach or suggest coupling the second power supply to the black transfer roller.

The Office Action also states that Figures 14 – 17 of Tanaka disclose a first power supply coupled to at least two but less than all of the transfer rollers. This is in error. Figure 14 illustrates a first power supply and a second power supply, but only one power supply can be utilized at any one time by selecting the appropriate position of switch 42. A voltage distribution circuit couples the selected power supply to all of the transfer rollers. Figure 14, therefore, does not disclose that the power supply can be coupled to less than all of the transfer rollers.

The same power supply arrangement as disclosed in Figure 14 is also disclosed in Figure 15. Figure 15 further discloses a switch in the circuit for each of the yellow, magenta, and cyan transfer rollers. Despite the individual switches, Tanaka teaches that they are not operated independently and cannot be used to couple the black transfer roller with at least one but not all of the non-black transfer rollers:

In this modification, individual switch units 34C to 34K are provided in the transfer current paths through each of the plurality of transfer rollers for color images 25C, 25M, and 25Y. However, one switch unit 39 may be substituted for these switch units as in Fig. 16, whereby all of the transfer current path of the transfer rollers for color images are disconnected at the same time, because these

switches are turned ON at the almost same time during color printing operation.

(Col. 13, lines 4 – 12).

As stated above, Figure 16 is merely a similar embodiment to that shown in Figure 15. Figure 17 discloses an embodiment of the power supplies and coupling to the transfer rollers essentially similar to that shown in Figure 14.

For at least these reasons, independent claim 1 and dependent claims 2 – 11 are not made obvious by Omata and Tanaka and are in condition for allowance.

Claim 12 has been amended to now include that the first transfer unit transfers black print material and the second transfer unit transfers non-black print material. Claim 12 also includes that the first power supply is coupled with the first and second transfer units. As discussed above for claim 1, the combination of Omata and Tanaka fails to disclose a power supply coupled to the black transfer unit and at least one non-black transfer unit but not all of the non-black transfer units.

For at least these reasons, independent claim 12 and dependent claims 13, 14, and 16 – 18 are not made obvious by Omata and Tanaka and are in condition for allowance.

Claim 19 includes a first power supply coupled to a first transfer device transferring black print material, and a second transfer device transferring yellow print material. As discussed above for claim 1, the combination of Omata and Tanaka fails to disclose a power supply coupled to the black transfer unit and at least one non-black transfer unit but not all of the non-black transfer units.

For at least these reasons, independent claim 19 and dependent claims 20 – 22 are not made obvious by Omata and Tanaka and are in condition for allowance.

Claim 23 has been amended to now include a single power supply supplying a voltage to the transfer device of a black image forming unit and at least one transfer device of a plurality of non-black image forming units but less than all of the transfer devices of the non-black image

forming units. As discussed above for claim 1, the combination of Omata and Tanaka fails to disclose a power supply coupled to the black transfer device and at least one non-black transfer device but not all of the non-black transfer units.

For at least these reasons, independent claim 23 and dependent claims 24 – 28 are not made obvious by Omata and Tanaka and are in condition for allowance.

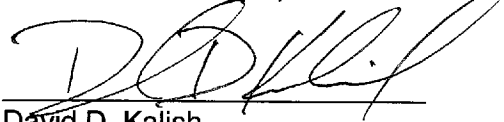
Claim 29 has been amended to now include applying a voltage with a power supply to a black image forming unit and a non-black image forming unit, but less than a plurality of image forming units. As discussed above for claim 1, the combination of Omata and Tanaka fails to disclose a power supply applying a voltage to the black transfer unit and at least one non-black transfer unit but not all of the transfer units.

For at least these reasons, independent claim 29 and dependent claim 31 are not made obvious by Omata and Tanaka and are in condition for allowance.

In view of the above amendments and remarks, the Applicants submit that the present application is in condition for allowance and such action is respectfully requested. If any issues remain unresolved, the Applicant's attorney requests a telephone interview to expedite allowance and issuance.

Respectfully submitted,

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